**Sorting**

.model small

.386

.data

ARRAY DW 20 DUP (?)

DATA1 dw 0000H

NUMB DW 0000H

msg db 10,13,"Enter the size of the array :: $"

msg2 db 10,13,"Enter the array :: $"

msg3 db 10,13,"The sorted array is :: $"

.code

.startup

MOV AH,09

MOV DX,OFFSET msg

INT 21H

MOV AH,01

INT 21H

SUB AL,30H

MOV AH,0

MOV CX,AX

MOV DATA1,AX

MOV AH,09

MOV DX,OFFSET msg2

INT 21H

MOV AH,0

MOV SI, 0

MOV BX, OFFSET ARRAY

L1: MOV DL, 0AH ; jump onto next line

MOV AH, 02H

INT 21H

MOV DX, SI ; input element of the array

MOV AH, 01H

INT 21H

SUB AL,30H

MOV SI, DX

MOV [BX + SI], AX

INC SI

LOOP L1

MOV CX, DATA1

MOV BX, OFFSET ARRAY

MOV DI,CX

L2: MOV CX, DATA1

MOV NUMB, CX ; Change1

DEC NUMB ; Change2

MOV CX, NUMB ; change3

MOV SI, 0

L3: MOV AL, [BX + SI]

CMP AL, [BX + SI + 1]

JL L4

XCHG AL,[BX + SI + 1]

MOV [BX + SI],AL

L4: INC SI

LOOP L3

DEC DI

JNZ L2

MOV CX, DATA1

MOV SI, 0

MOV BX, OFFSET ARRAY

MOV AH,09

MOV DX,OFFSET msg3

INT 21H

L5: MOV DL, 0AH ; jump onto next line

MOV AH, 02H

INT 21H

MOV DX, [BX + SI]

INC SI

ADD DL, 30H

MOV AH, 02

INT 21H

LOOP L5

.EXIT

END